U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Southside Chattanooga Lead - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject:	**POLREP #17** **Residential Soil Removal Continues** **Southside Chattanooga Lead** **Chattanooga, TN** **Latitude: 35.0333793 Longitude: -85.3057271**
To:	Jim Mc Guire, ERRB Reg 4
From:	Perry Gaughan, On Scene Coordinator
Date:	6/18/2013
Reporting Period:	May 20th through June 1st 2013

1. Introduction

1.1 Background

Site Number:	B4J4	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	8/19/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	9/17/2012	**Start Date:**	9/24/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Lead contaminated soil on 52 properties being removed as a time critical removal under CERCLA.

1.1.2 Site Description

The Tennessee Department of Environmental Conservation (TDEC) requested the EPA Region 4 Emergency Response and Removal Branch's (ERRB's) assistance after discovering that the lawns of one residence and potentially several more were contaminated with lead along Read Avenue near downtown Chattanooga. Initially, one resident along Read Avenue presented to the emergency room with severe fatigue and abdominal pain. Emergency room blood work indicated lead levels approaching 20 micrograms per deciliter (ug/dl) which alerted TDEC to conduct follow up assessments. TDEC requested assistance from ERRB to characterize the soil around the home and an initial assessment was conducted with SESD (Science and Ecosystem Support Division) Athens in which three homes were assessed as well as a public park and playground area at 1700 Mitchell Avenue. Ten samples were collected and two samples showed elevated lead levels exceeding 400 ppm.

1.1.2.1 Location

The Southside Chattanooga Lead Site is located along Read, Mitchell and Carr Avenues south of Main Street in Chattanooga, Hamilton County, Tennessee (Latitude: 35.0456, Longitude: -85.3097). The area is a blend of young, middle income couples who are renovating older constructed homes and low to middle income retired couples who have resided in the area for 20 plus years. The vast majority of homes were built in the early 1900's.

The Southside Chattanooga area is immediately adjacent to downtown Chattanooga and was prone to flooding during the early 1900's and prior to the development of damming and flood control measures by the Tennessee Valley Authority (TVA). Several of the homes along Read and Mitchell Avenues appear to have been built on 4-5 feet of clay fill.

1.1.2.2 Description of Threat

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In response to a request from TDEC, the EPA Region 4 ERRB with assistance from SESD Athens, conducted two follow up assessments of the Read and Mitchell Avenue area in January and April 2012. Of the 81 homes (162 front and back yards) assessed near downtown Chattanooga, 68 lawns (42 %) have lead levels exceeding 400 ppm. Lead levels range from 400 – 4000 ppm. The 4000 ppm sample was collected from a lawn along the 1600 block of Read Ave and the sample contained very dark fine material, most likely a high concentration of bag-house dust.

In addition, the Battle Academy Elementary School which neighbors the site was sampled in mid June 2012. A 20' by 20' grid was laid over the school property and 140 grids were screened using X-ray fluorescence spectroscopy (XRF). No significant lead contamination was found and all lead levels were below 55 ppm.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

May 20th through May 25th 2013

On Monday May 20th, site operations were cancelled early in the day because of heavy rainfall.

On Tuesday, May 21st, the ERRs crew began removal of contaminated soil at 1701 Mitchell Avenue front yard. In areas within the front yard there was a clay cap likely due to construction of the new residence, however in areas the cap became very shallow, thus removal of contaminated material beneath was completed. The crew continued to remove soil from the front yard and made way to the north side yard of the property. While removing material here, START observed contaminated soil in the back yard (seam of contaminated soil could be seen along a sagittal cut). START collected a composite soil sample from the front yard of this property to be shipped to the lab at a later date. The crew then placed a layer of clay backfill, then a layer of topsoil. The soil was compacted and the crew covered bare areas with straw.

On Wednesday, May 22nd, the ERRs crew re-established the iron fence at 1707 Mitchell Avenue, and continued to remove contaminated soil from the north side yard of 1701 Mitchell. Once this area was remediated, the crew placed a layer of clay, and then a layer of topsoil. The soil was compacted and covered with straw. On this day, START escorted a certified arborist at the site to view very old trees within the neighborhood and to view areas where work had already been completed at residential properties. The arborist pointed out areas of concern that the crew needed to take caution while excavating near the trees. The arborist also made recommendations during removal of soil near the trees of concern.

On Thursday, May 23rd, the crew planted vegetables and shrubs at 1705 Read Avenue. The crew placed a black poly liner along the gardens at this property. Once work was completed, START communicated with the resident to inquire if the work was done to her satisfaction and the property owner stated that she was happy with the work. The crew also removed a very large, dead tree stump from the back yard of 1709 Mitchell Avenue, which was obstructing work in the back yard.

Friday, May 24th was a demobe day for the holiday weekend.

May 27th through June 1st 2013

Monday, May 27th - No site operations, Memorial Day holiday.

On Tuesday, May 28th, the OSC, START and TDEC's Troy Keith met with Sean Roberts, a PhD from U of Tennessee Chattanooga to share information on lead findings to date. Dr Roberts has a grant funded by the National Institute of Health on the prevalence of low birth weight infants among women in the Chattanooga area and whether there is a direct correlation to chemical contaminants in the area. Discussions centered around the degree of lead contamination along Read and Mitchell Avenues and the lack of predictability. The waste fill material EPA is removing does not have a uniform concentration of lead, rather it varies significantly from yard to yard.

On Wednesday, May 29th, the ERRs crew began by removing dead tree debris from the back yards of 1709 and 1713 Mitchell Avenue. The crew then began removing contaminated soil from the back yard of 1709 Mitchell and a small portion of the back yard of 1711 Mitchell.

On Thursday, May 30th, the ERRs crew continued to remove contaminated soil from the 1709 and 1711 Mitchell back yards, and rented a smaller excavator and loader to access the side yard between 1709 Mitchell and 1707 Mitchell. At the same time, some of the crew members were also backfilling the back yards of 1709 and 1711 Mitchell, and worked forward between 1709 and 1707 Mitchell. During excavation between 1709 and 1711 Mitchell, the excavator operator broke a water line in two places. A contract plumber was called and repaired the water line the same day. Also observed during removal efforts were two broken clean-out sewer lines.

On Friday, May 31st, the two clean-out sewer lines observed the previous day were repaired by the contracted plumber. The crew continued to remove the small amount of contaminated soil remaining at the front yards of 1709 and 1711 Mitchell. Once this material was removed, START collected soil samples from both yards, which will be submitted to a lab at a later date. The crew backfilled the excavated areas with clay, topsoil, and compacted the area. The bare areas were covered with straw. The crew added a river rock sidewalk on the right side of the structure at 1709 Mitchell to replace the already broken sidewalk during removal efforts. The crew also placed river rock under the small deck at the back of this home due to insufficient sun light for sod.

START contractors continue to assist with technical support, daily operations, post-excavation confirmation sampling using X-ray fluorescence spectroscopy (Xrf) and air sampling during excavation and staging of contaminated soils.

The OSC continues to coordinate clean up efforts and assessments with Tenn Dept of Environmental Conservation (TDEC) and Tenn Dept of Health as well as Hamilton County health officials. TDEC and the OSC plan to update Chattanooga City Council during February 2013. A specific date has not been set by City Council.

The OSC, Tenn Dept of Health and Tenn Dept of Environmental Conservation (TDEC) are currently preparing an assessment strategy for Chattanooga City Council addressing future lead assessments in the downtown area.

2.1.2 Response Actions to Date

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

No information available at this time.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$1,850,000.00	$1,755,600.00	$94,400.00	5.10%
TAT/START	$100,000.00	$65,000.00	$35,000.00	35.00%
Intramural Costs				
Total Site Costs	$1,950,000.00	$1,820,600.00	$129,400.00	6.64%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

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4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.